


## County of Loudoun

### Department of Transportation and Capital Infrastructure

#### MEMORANDUM

**DATE:** April 4, 2013

**TO:** Evan Harlow, Project Manager  
Department of Planning

**FROM:** Arkopal Goswami, Senior Transportation Planner   
Transportation Division

**SUBJECT:** ZMAP 2012-0011 – Tuscarora Crossing  
Second Referral

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#### **Background**

This referral updates the status of comments noted in the first Department of Transportation and Capital Infrastructure (TCI) (formerly Office of Transportation Services (OTS)) referral on this rezoning (ZMAP) application, dated December 6, 2012. This application seeks approval a Zoning Map Amendment (ZMAP) to rezone approximately 250 acres of land from Planned Development – General Industry (PD-GI) to Planned Development – Housing (PD-H3), in order to allow 367 single family detached, 353 townhouse units, and up to 23,000 sq. ft. of commercial/retail uses. In addition, the Applicant also proposes a 15-acre land bay for public use, such as an elementary school.<sup>1</sup> The property is located along the future planned alignment of Crosstrail Boulevard (VA Route 653 Relocated), south of Russell Branch Parkway, and northeast of Kincaid Boulevard Extended. Access to the property will be provided via four access points along future Crosstrail Boulevard.

This update is based on TCI's review of materials received from the Department of Planning on March 7, 2013, including (1) an information sheet; (2) a statement of justification prepared by the Applicant, dated March 5, 2013; (3) a traffic study prepared by Wells & Associates, Inc., dated July 10, 2012 revised through February 1, 2013; and (4) a zoning map amendment plat prepared by Bowman Consulting Group, Ltd., dated July 9, 2012 revised through March 5, 2013.

#### **Review of Applicant's Revised Traffic Study**

A revised traffic study (dated February 1, 2013) was submitted by the Applicant. There are no changes to the existing (2012) and background (2018 and 2028) conditions. The traffic study

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<sup>1</sup> This development plan differs from the first submission where the Applicant had proposed to rezone from PD-GI to PD-H4 in order to allow 453 single family detached and 344 townhouse units.

assumptions regarding the roadway network in 2018 and 2028 (i.e. construction of Crosstrail Boulevard, Trailview Boulevard, Miller Drive, and Russell Branch Parkway) also remain the same. The only changes in the study, primarily due to the revised development scheme, are to the trip generation and distribution analyses, and the subsequent analysis of the future (2018 and 2028) with development condition. Described in the section below are these changes.

### Trip Generation and Distribution from Proposed Development

Table 1 below shows the trips generated by the proposed (revised) development during the weekday commuter morning and afternoon peak hours. Combined, the proposed uses would generate a total of 742 morning peak hour trips, 681 afternoon peak hour trips, and 7,162 daily trips.

**Table 1. Comparison of Trips Generated between Proposed and Approved Use**

Land Use	Size	Units	Total Generated Trips						Average Daily Traffic
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Proposed Uses									
Single Family	367	DU	67	199	266	217	128	345	3,439
Town Homes	353	DU	24	118	142	113	56	169	1,927
Elementary School	600	Students	149	121	270	44	46	90	774
Specialty Retail Center	23	kSF	40	24	64	34	43	77	1,022
Approved Uses									
Light Industrial	1,469	kSF	1,189	162	1,351	173	1,266	1,439	10,238
Office	1,411	kSF	1,372	187	1,559	282	1,377	1,659	9,815
Comparison (Proposed – Approved Uses)			-2,281	113	-2,168	-47	-2,370	-2,417	-12,891

Source: Wells & Associates Inc., Tuscarora Crossing Traffic Impact Study, dated 2/1/13.

In addition, the table also compared the trips that could be generated from the approved flex-industrial uses to the trips that would be generated from the proposed residential uses. The study indicates that the proposed residential uses will generate 2,168 fewer AM peak hour trips, 2,417 fewer PM peak hour trips, and 12,891 fewer daily trips than the approved flex-industrial uses.

**Attachments 1 & 2** (Figure 5-1, Figure 5-2) illustrate the trip distribution percentages as a result of the proposed development in 2018 and 2028 respectively. This distribution is broken down by use, i.e. residential, retail, and school.

### Forecasted Traffic Volumes (2018 & 2028), and Level of Service (LOS) with Proposed Development

**Attachments 3 - 7** (Figure 6-1, Figure 6-2, Figure 6-3, Figure 6-4, and Table 6-1) illustrate the Future (2018 and 2028) Conditions with Development (background plus site generated traffic)

analysis, depicting the traffic volumes and intersection LOS. The study indicates that with future improvements in place, all approaches and intersections analyzed are forecast to operate at acceptable conditions (LOS D or better).

### **Transportation Comments and Recommendations**

Staff comments from the first TCI (formerly OTS) referral (December 6, 2012), as well as the Applicant's responses (quoted directly from the Applicant's March 5, 2013 response letter) and comment status, are provided below.

1. Initial Staff Comment (1<sup>st</sup> Referral): As per the 2010 CTP, Trailview Boulevard is planned to be a four-lane controlled access median divided major collector (U4M), within a 90-foot ROW. OTS acknowledges that the need for Trailview Boulevard (west of Crosstrail Boulevard) is driven by the existing planned land use (i.e., needed to support planned non-residential uses on site). As such, OTS recommends that the Applicant revise the traffic study to include a scenario depicting the future "2028 Conditions with Development" with the Trailview Boulevard connection between Crosstrail Boulevard and Keystone Drive. This analysis, combined with the analysis currently shown in the traffic study ("2028 Conditions with Development" without the Trailview Boulevard connection between Crosstrail Boulevard and Keystone Drive) will demonstrate the need for Trailview Boulevard, and could support the removal of this planned roadway from the CTP in the future.

*Applicant's Response (March 5, 2013): The traffic study demonstrates that the anticipated traffic from the proposed development will be adequately served by Crosstrail Boulevard alone. We note the OTS acknowledges that the need for Trailview Boulevard is due to the existing planned non-residential uses on the Property. The approval of this rezoning application will eliminate the planned high traffic generating uses that are the reason for the referenced portion of Trailview Boulevard.*

**Comment Status:** Any amendment to the CTP that might be needed to eliminate the aforementioned section of Trailview Boulevard will require supporting documentation. The scenario analysis as mentioned in the 1<sup>st</sup> referral comment would demonstrate the need for this roadway or lack thereof. As such TCI reiterates that the Applicant conduct the scenario analysis and revise the traffic study. Upon review of this analysis, TCI may have further comments regarding Trailview Boulevard.

2. Initial Staff Comment (1<sup>st</sup> Referral): The development program as presented in the Applicant's information sheet as well as the plat (453 single family detached and 344 townhome units) differs from the development program analyzed in the traffic study (469 single family detached homes and 328 townhomes). The Applicant should clarify the proposed development program, and revise the traffic study if needed.

*Applicant's Response (March 5, 2013): An updated development program of 720 lots (367 SFD and 353 SFA) has been incorporated in the revised traffic study and is included on the CDP.*

**Comment Status:      Comment addressed.**

3. Initial Staff Comment (1<sup>st</sup> Referral): As per the 2010 CTP, Crosstrail Boulevard in its ultimate condition is planned to be a six-lane controlled access median divided urban major collector (U6M), within a 120-foot ROW, with additional ROW for turn lanes and bicycle/pedestrian facilities, as required. As such, the Applicant should revise the plat and depict the necessary ROW for this roadway. In addition, the Applicant should also commit to dedication of this ROW for Crosstrail Boulevard to the County upon request at no public cost.

Furthermore, OTS recommends that the Applicant coordinate the construction of Crosstrail Boulevard with the County project that is currently being designed. As such, the Applicant should commit to construct the following:

- a) Initial Staff Comment (1<sup>st</sup> Referral): Two-lane section of Crosstrail Boulevard (ultimate westbound lanes) within the site.

*Applicant's Response (March 5, 2013): A two-lane Crosstrail Boulevard within the Property is provided in Proffer IV.A.2.*

**Comment Status**: TCI recommends that the Applicant commit to bond or construct a two-lane section of Crosstrail Boulevard by first record plat/site plan, such that it is open to traffic by first occupancy permit. This facility is essential as it provides access to the proposed development. Alternatively, the Applicant should either provide alternate access points, or phase the development in a manner so as to tie it to the construction of the County's Crosstrail Boulevard project (i.e. two of the ultimate eastbound lanes and a four-lane bridge over Tuscarora creek), which is included in the Capital Improvement Program (CIP) for FY2018. This is to ensure that there is at least a two-lane section open to traffic by first occupancy permit. As such, TCI recommends that the draft proffer language be revised appropriately.

- b) Initial Staff Comment (1<sup>st</sup> Referral): Turn lanes along Crosstrail Boulevard at all future intersections on site. OTS recommends that the plat be revised to depict the same.

*Applicant's Response (March 5, 2013): Turn lanes will be provided where warranted.*

**Comment Status**: Per the 2010 CTP, Crosstrail Boulevard is a major collector with turn lanes required at all intersections. As such, the Applicant should commit to construct the aforementioned turn lanes at all site intersections.

- c) Initial Staff Comment (1<sup>st</sup> Referral): Signal at the future intersection of Crosstrail Boulevard and Trailview Boulevard. The Applicant's traffic study assumes this signal to be in place. As such, the Applicant should commit to install the signal, or alternately provide cash-in-lieu contribution, if already constructed by others.

Applicant's Response (March 5, 2013): A traffic signal is not required for build-out of the project. The need for the signal is therefore related to background conditions. With that said, the project would benefit from controlled access and project is willing to contribute its fair share when warranted. See proffer IV.C.

**Comment Status:** As per draft proffers IV. D. the Applicant has committed to conduct a signal warrant analysis. TCI further recommends that if warranted, the Applicant commit to installing the signal, as per the 1<sup>st</sup> referral comments, or alternately provide cash-in-lieu contribution, if already constructed by others.

- d) Initial Staff Comment (1<sup>st</sup> Referral): Bicycle and pedestrian facilities along Crosstrail Boulevard within the site. Appendix 6 of the 2010 CTP calls for two 10-foot wide shared use paths along six-lane roadways. As such, the Applicant should construct the necessary bicycle and pedestrian facilities along Crosstrail Boulevard in such a manner so as to tie-in to the existing facilities. OTS also recommends that the Applicant revise the plat to depict the same.

Applicant's Response (March 5, 2013): The CDP has been revised to include a multi-use trail path on Crosstrail Boulevard.

**Comment Status:** Comment addressed.

- e) Initial Staff Comment (1<sup>st</sup> Referral): Bridge over the Washington and Old Dominion (W&OD) Trail. As depicted in the Applicant's rezoning plat, Crosstrail Boulevard will cross over the W&OD trail. As such, OTS recommends that the Applicant construct a two-lane section (ultimate westbound lanes) of the bridge over the trail.

Applicant's Response (March 5, 2013): The proffered 2-lane section of Crosstrail will include a bridge over the W&OD Trail.

**Comment Status:** Comment addressed contingent upon addition of suitable language in the proffer statement.

- f) Initial Staff Comment (1<sup>st</sup> Referral): The Applicant should ensure that its proposed site entrances are coordinated with the County's current design work for Segment B of Crosstrail Boulevard, as well as with the ROW reservation for Trailview Boulevard east of Crosstrail Boulevard (per ESMT 2010-0055).

Applicant's Response (March 5, 2013): Acknowledged.

**Comment Status:** Comment addressed.

4. Initial Staff Comment (1<sup>st</sup> Referral): As per the 2003 Bike & Ped Plan (Chapter 4, Walkways & Sidewalks Policy 2a), all local/secondary roads are to have sidewalks on both sides. The

Applicant should revise the plat to depict the proposed internal street network along with the bicycle and pedestrian facilities along all internal roadways.

*Applicant's Response (March 5, 2013): Note 20 has been revised to state sidewalks will be provided on both sides of streets as requested/required.*

**Comment Status:**      **Comment addressed.**

5. Initial Staff Comment (1<sup>st</sup> Referral): The 2010 CTP (Chapter 3, *Transportation Demand Management (TDM) Policy #1*) calls for land development applications to identify and provide appropriate TDM strategies to reduce the overall number of vehicular trips. Contributions towards the Transit/Rideshare Trust Fund are listed as one of the strategies in the CTP. As such, OTS recommends that the Applicant provide a transit contribution amounting to \$625 per unit.

*Applicant's Response (March 5, 2013): The recommended contribution is provided in Proffer IV.E.*

**Comment Status:**      **Comment addressed.**

6. Initial Staff Comment (1<sup>st</sup> Referral): The application proposes residential development adjacent to the planned Crosstrail Boulevard, which is classified as a major collector per the 2010 CTP. The 2010 CTP (Chapter 7, *Noise Policy #1*) states that such residential developments will be designed to ensure that they will not experience adverse traffic noise impacts. As such, the Applicant should commit to conduct a noise study, as per the requirements stated in the aforementioned policy, to determine the predicted highway noise levels, assess noise impacts, and determine appropriate mitigation measures.

*Applicant's Response (March 5, 2013): The Applicant has included a proffer regarding the requested noise study.*

**Comment Status:**      **Comment addressed.**

### **New Comments**

The following new comments are noted based on review of the materials provided to TCI with this second referral or other new information:

7. As per draft proffer V.A., the Applicant has sought a credit for the percentage of the proffered Crosstrail Boulevard construction costs, including right-of-way, attributable to non-Tuscarora Crossing traffic. TCI does not recommend any credit for the right-of-way needed to construct Crosstrail Boulevard and recommends that any such language be removed from the draft proffer statement. However, TCI may be amenable to a partial credit for the construction costs of Crosstrail Boulevard and recommends that the Applicant provide a preliminary construction cost estimate for staff review.

8. TCI recommends that the Applicant revise the draft proffer language IV.A.1 to provide the necessary on-site ROW for construction of Crosstrail Boulevard along with all the required turn lanes, trails and sidewalks. The Applicant should also commit to provide necessary on-site easements needed to facilitate construction of Crosstrail Boulevard by the County.
9. The 2010 CTP (*Chapter 2, Traffic Calming Policy #3*) states that developers place emphasis on making streets less desirable for speeding and cut-through traffic. Based on the new information provided in the plat (Sheet 4 – Illustrative Plan), TCI recommends that the Applicant adhere to the aforementioned policy and commit to implement the necessary traffic calming measures during the development process.
10. TCI recommends that the Applicant proffer to install a bus shelter as per the standards outlined in Chapter 3 of the 2010 CTP. In addition, per the 2010 CTP (*Chapter 3, bus Shelters and Amenities Policies, Policy #4 and #5*), the Applicant should agree to maintain the shelter including lighting and trash removal. This shelter should be consistent with the County's standard (non-proprietary) design (see **Attachment 8**) and will be installed at a future time when public bus route(s) serves this corridor. The final location of the shelter is to be determined in consultation with TCI staff.

### **Conclusion**

**TCI has no overall recommendation on this application at this time. TCI staff will provide a recommendation after it has reviewed the Applicant's responses to the comments noted in this referral. Depending on the Applicant's responses, TCI may have additional comments. TCI staff is available to meet with the Applicant and discuss the comments noted in this referral.**

### **ATTACHMENTS**

1. Site Generated Peak Hour Traffic Forecasts – 2018, Figure 5-1
2. Site Generated Peak Hour Traffic Forecasts – 2028, Figure 5-2
3. Future Peak Hour Traffic Forecasts with Development – 2018, Figure 6-1
4. Future Peak Hour Traffic Forecasts with Development – 2028, Figure 6-2
5. 2018 Intersection Levels of Service with Development, Figure 6-3
6. 2028 Intersection Levels of Service with Development, Figure 6-4
7. Future with Development Intersection Level of Service and Queues, Table 6-1
8. Bus Shelter Diagram

cc: Joe Kroboth, Director, TCI  
Lou Mosurak, Senior Coordinator, TCI

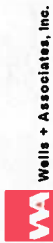




Figure 5-1  
Site Generated Peak Hour Traffic Forecasts - 2018

# ATTACHMENT 1

Tuscarora Crossing  
Loudoun County, Virginia





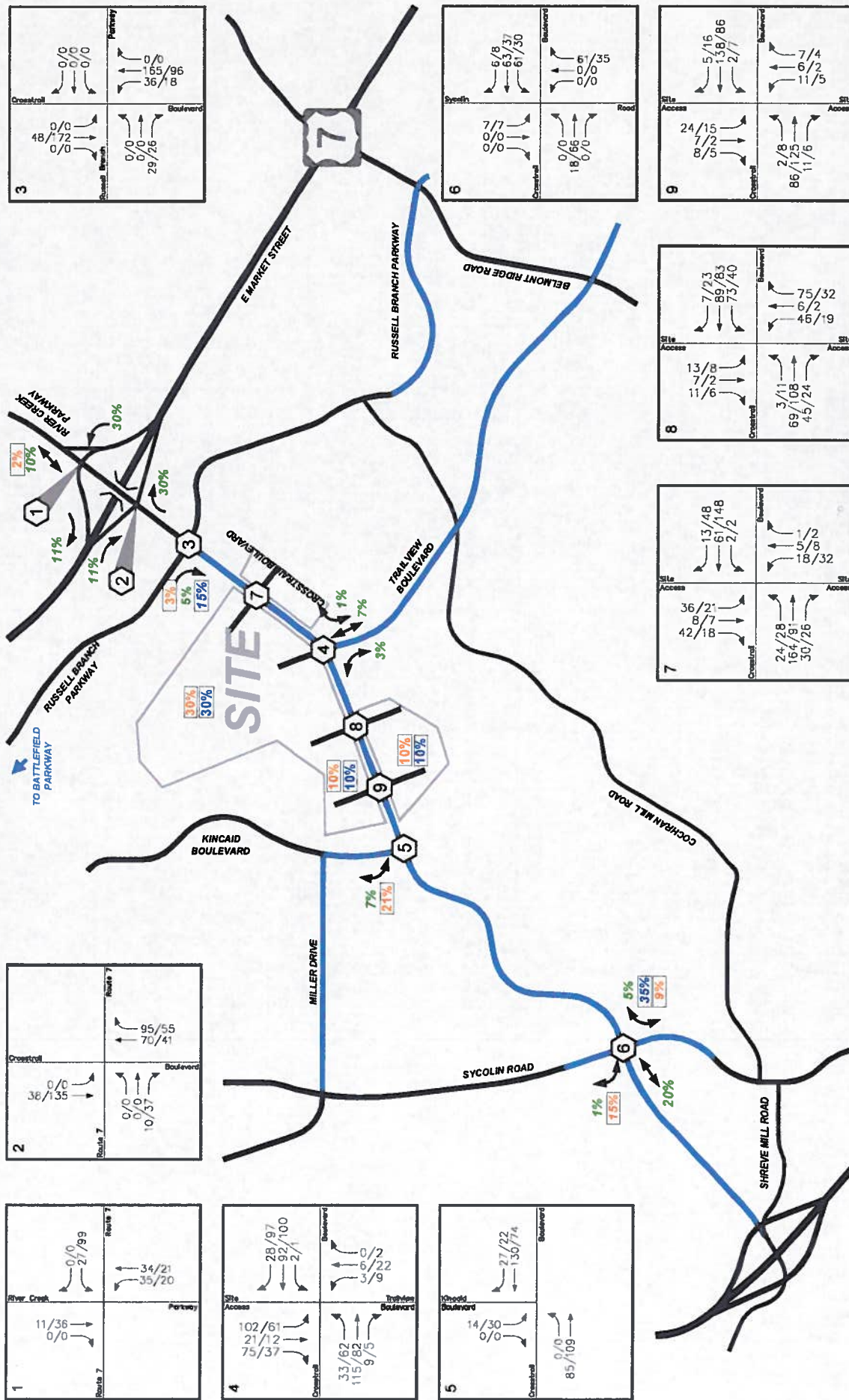


Figure 5-2  
Site Generated Peak Hour Traffic Forecasts – 2028

## ATTACHMENT 2

Tuscarora Crossing  
Loudoun County, Virginia

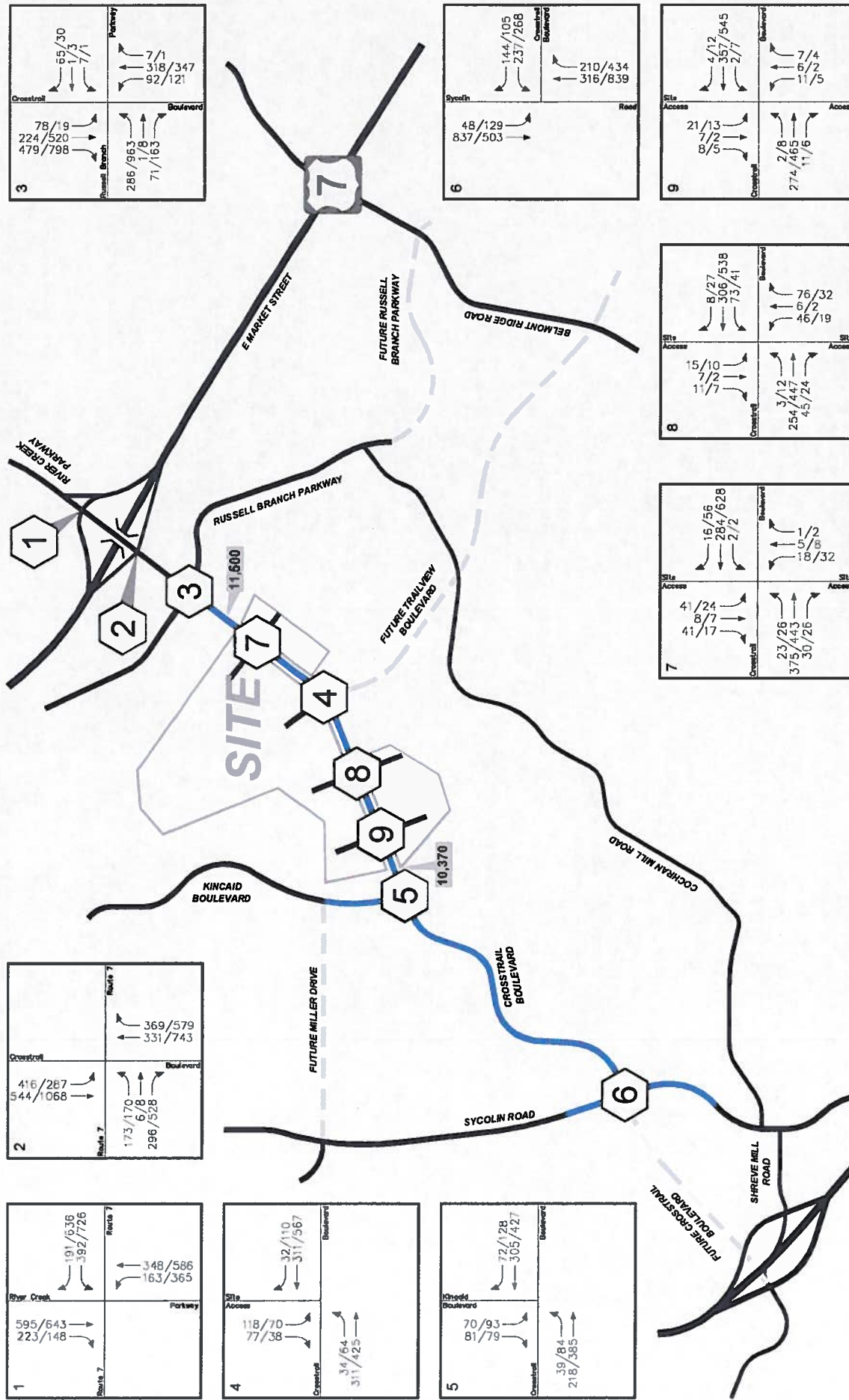
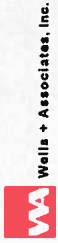


Figure 6-1  
Future Peak Hour Traffic Forecasts with Development - 2018

### ATTACHMENT 3

Tuscarora Crossing  
Loudoun County, Virginia





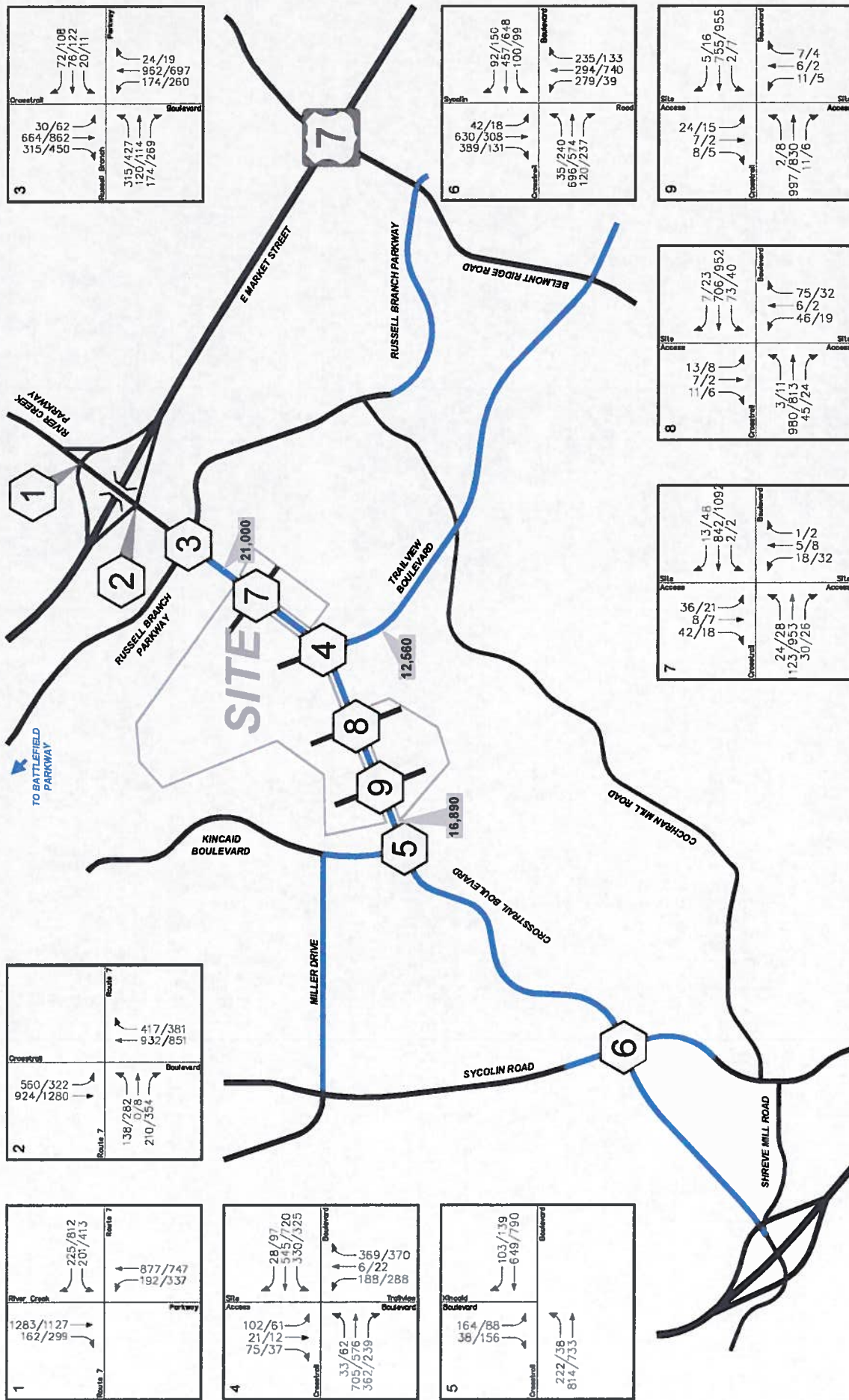


Figure 6-2  
Future Peak Hour Traffic Forecasts with Development - 2028

Planned Roadways  
Link ADT  
Average Daily Trips

AM Peak Hour  
PM Peak Hour  
000/000  
North

# ATTACHMENT 4

Tuscarora Crossing  
Loudoun County, Virginia



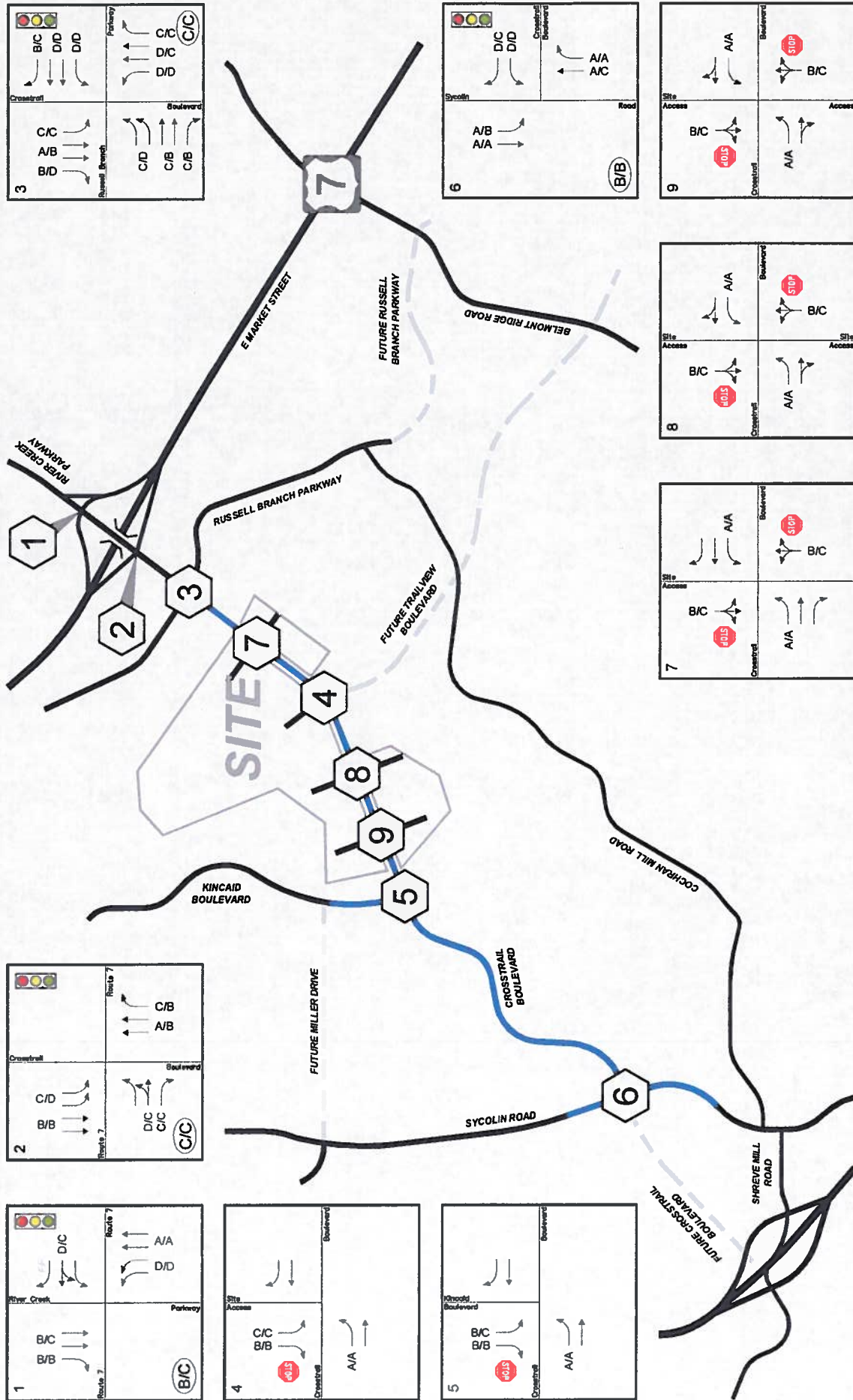


Figure 6-3  
2018 Intersection Levels of Service with Development

## ATTACHMENT 5

Tuscarora Crossing  
Loudoun County, Virginia



WA Wells + Associates, Inc.





Figure 6-4  
2028 Intersection Levels of Service with Development

## ATTACHMENT 6

Tuscarora Crossing  
Loudoun County, Virginia



Wells + Associates, Inc.

Table 6-1

## Tuscarora Crossing

## Future with Development Intersection Levels of Service and Queues

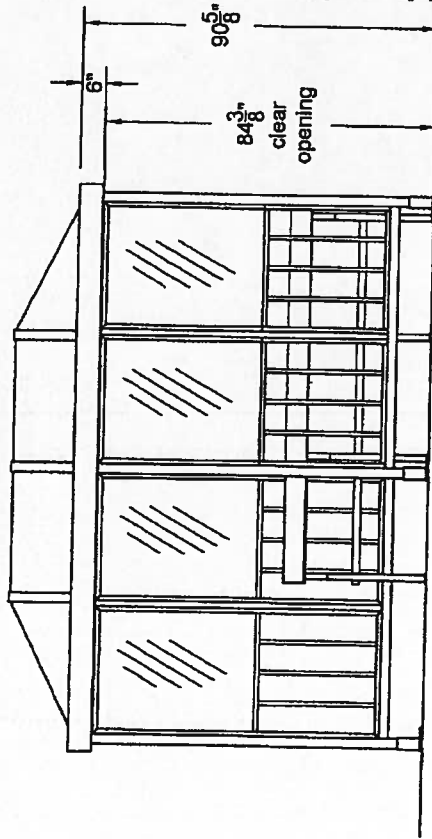
Intersection		Future 2018 with Development										Future 2028 with Development								
		Control	Movement	Storage	AM			PM				Control	Movement	Storage	AM			PM		
					LOS	Delay	95th % Queue	LOS	Delay	95th % Queue					LOS	Delay	95th % Queue	LOS	Delay	95th % Queue
1. Route 7 Westbound On/Off Ramp & River Creek Parkway	Signal	WBLT	-	D	(35.6)	136	C	(33.4)	235		Signal	WBLT	-	D	(36.9)	80	D	(35.0)	139	
		NBL	250	D	(37.1)	73	D	(39.6)	106			NBL	250	C	(31.6)	52	C	(30.8)	127	
		NBT	-	A	(6.9)	66	A	(2.0)	16			NBT	-	A	(1.6)	0	A	(7.0)	181	
		SBT	-	B	(11.6)	142	C	(22.3)	209			SBT	-	B	(13.3)	338	C	(20.6)	#413	
		SBR	-	B	(10.3)	33	B	(12.8)	38			SBR	-	A	(2.2)	25	B	(14.0)	61	
		Overall		B	(18.3)		C	(23.0)				Overall		B	(12.3)		B	(19.7)		
2. Route 7 Eastbound On/Off Ramp & Crosstrail Boulevard	Signal	EBLT	-	D	(37.4)	72	C	(24.6)	50		Signal	EBLT	-	D	(37.7)	60	C	(32.7)	96	
		EBR	400	C	(20.1)	174	C	(31.4)	349			EBR	400	B	(19.4)	146	C	(27.9)	253	
		NBT	-	A	(6.7)	69	B	(16.8)	m266			NBT	-	B	(16.7)	272	B	(14.4)	210	
		NBR	-	C	(23.3)	92	B	(14.7)	m288			NBR	-	B	(13.8)	48	B	(12.3)	40	
		SBL	500	C	(33.5)	134	D	(38.1)	m104			SBL	500	C	(25.1)	121	D	(38.5)	#147	
		SBT	-	B	(13.8)	110	B	(17.6)	394			SBT	-	B	(10.1)	76	A	(9.2)	17	
		Overall		C	(21.0)		C	(21.2)				Overall		B	(17.0)		B	(17.4)		
3. Russell Branch Parkway & Crosstrail Boulevard	Signal	EBL	400	C	(34.5)	102	D	(37.4)	#375		Signal	EBL	400	D	(49.7)	149	D	(47.2)	191	
		EBT	-	C	(25.5)	1	B	(15.8)	5			EBT	-	D	(41.1)	61	C	(32.4)	52	
		EBR	200	C	(25.9)	24	B	(16.9)	45			EBR	200	C	(32.3)	54	C	(20.4)	111	
		WBL	250	D	(44.1)	16	D	(43.0)	5			WBL	250	E	(57.9)	39	E	(59.5)	27	
		WBT	-	D	(42.6)	2	D	(43.0)	4			WBT	-	D	(53.4)	51	D	(50.2)	73	
		WBR	200	B	(12.9)	11	C	(24.1)	10			WBR	200	C	(27.9)	40	C	(24.0)	30	
		NBL	350	D	(35.6)	81	D	(51.4)	#131			NBL	350	B	(18.3)	45	D	(41.0)	#270	
		NBT	-	D	(35.1)	110	C	(33.1)	123			NBT	-	C	(26.8)	412	C	(30.0)	181	
		NBR	350	C	(30.8)	9	C	(32.0)	m2			NBR	350	A	(5.5)	m0	A	(3.1)	m0	
		SBL	350	C	(20.3)	74	C	(21.1)	m11			SBL	350	B	(11.5)	20	C	(22.2)	41	
		SBT	-	A	(9.1)	63	B	(10.4)	104			SBT	-	B	(16.1)	226	C	(34.1)	357	
		SBR	350	B	(13.2)	40	D	(26.2)	343			SBR	350	A	(6.5)	25	B	(14.2)	58	
		Overall		C	(25.0)		C	(31.0)				Overall		C	(25.7)		C	(31.7)		
4. Trail View Boulevard (2028)/ North Mid Site Driveway & Crosstrail Boulevard	Stop	EBL	-	C	(15.3)	24	C	(19.7)	20		Signal	EBL	-	C	(31.3)	93	C	(34.4)	61	
		EBR	-	B	(10.8)	9	B	(13.0)	6			EBT	-	D	(49.0)	62	D	(53.4)	44	
		NBL	-	A	(8.1)	2	A	(9.5)	6			WBL	250	D	(45.4)	162	D	(43.4)	253	
												WBT	-	E	(55.8)	16	D	(52.7)	38	
												WBR	200	D	(36.3)	115	C	(31.6)	50	
												NBL	225	C	(21.9)	22	B	(10.5)	22	
												NBT	-	C	(33.5)	224	B	(14.1)	177	
												NBR	225	B	(15.7)	44	A	(0.8)	2	
												SBL	200	B	(12.2)	123	A	(7.5)	67	
												SBT	-	A	(6.4)	54	A	(6.3)	84	
												SBR	200	A	(0.2)	1	A	(1.2)	m0	
												Overall		C	(24.5)		B	(16.4)		
5. Kincaid Boulevard & Crosstrail Boulevard	Stop	EBL	-	B	(13.2)	11	C	(19.2)	26		Signal	EBL	-	C	(20.3)	114	B	(16.2)	75	
		EBR	-	B	(10.8)	9	B	(12.0)	11			EBR	-	A	(8.4)	11	B	(12.0)	42	
		NBL	-	A	(8.3)	3	A	(9.1)	7			NBL	250	A	(6.0)	57	A	(8.3)	m6	
												NBT	-	A	(5.0)	101	A	(7.1)	34	
												SBT	-	B	(17.1)	172	D	(37.5)	303	
												SBR	250	A	(6.1)	14	A	(0.4)	m0	
												Overall		B	(10.4)		B	(19.9)		
6. Crosstrail Boulevard & Sycollin Road	Signal	WBL	-	D	(48.6)	#231	D	(54.7)	#270		Signal	EBL	250	C	(27.5)	33	D	(36.1)	189	
		WBR	-	D	(39.0)	52	C	(30.2)	42			EBT	-	D	(45.7)	305	C	(34.0)	220	
		NBT	-	A	(8.0)	119	C	(20.4)	496			EBR	250	C	(20.8)	27	C	(25.9)	30	
		NBR	-	A	(1.8)	7	A	(2.8)	19			WBL	250	C	(28.6)	75	B	(14.7)	26	
		SBL	-	A	(3.8)	14	B	(14.8)	37			WBT	-	D	(35.3)	180	B	(19.4)	283	
		SBT	-	A	(2.0)	314	A	(5.2)	134			WBR	250	C	(25.4)	28	B	(13.8)	49	
		Overall		B	(15.5)		B	(18.0)				NBL	250	C	(22.8)	185	C	(20.9)	37	
												NBT	-	C	(20.8)	107	C	(28.3)	302	
												NBR	250	B	(15.6)	67	C	(22.4)	39	
												SBL	250	C	(21.0)	35	C	(29.9)	21	
												SBT	-	C	(32.8)	285	C	(23.2)	119	
												SBR	250	C	(28.8)	247	C	(22.4)	39	
												Overall		C	(31.1)		C	(25.8)		
7. North Site Driveway & Crosstrail Boulevard	Stop	EBLTR	-	B	(13.5)	15	C	(18.3)	13		Stop	EBLTR	-	C	(23.0)	29	D	(28.3)	20	
		WBLTR	-	B	(14.7)	5	C	(21.3)	13			WBLTR	-	D	(30.9)	12	D	(34.3)	23	
		NBL	-	A	(8.0)	1	A	(9.3)	2			NBL	-	B	(10.1)	2	B	(11.8)	4	
		SBL	-	A	(8.2)	0	A	(8.4)	0			SBL	-	B	(10.8)	0	B	(10.0)	0	
8. South Mid Site Driveway & Crosstrail Boulevard	Stop	EBLTR	-	B	(14.4)	6	C	(17.2)	5		Stop	EBLTR	-	D	(27.7)	14	C	(24.6)	6	
		WBLTR	-	B	(14.0)	23	C	(15.5)	11			WBLTR	-	D	(34.2)	64	C	(19.6)	15	
		NBL	-	A	(8.0)	0	A	(8.8)	1			NBL	-	A	(9.3)	0	B	(10.6)	1	
		SBL	-	A	(8.1)	5	A	(8.6)	3			SBL	-	B	(11.6)	10	B	(10.1)	4	
9. South Site Driveway & Crosstrail Boulevard	Stop	EBLTR	-	B	(13.0)	6	C	(16.3)	4		Stop	EBLTR	-	C	(21.5)	13	C	(22.7)	8	
		WBLTR	-	B	(12.5)	4	C	(15.1)	2			WBLTR	-	C	(21.4)	8	C	(16.8)	3	
		NBL	-	A	(8.1)	0	A	(8.7)	1			NBL	-	A	(9.5)	0	B	(10.6)	1	
		SBL	-	A	(7.9)	0	A	(8.4)	0			SBL	-	B	(10.3)	0	A	(9.1)	1	

Notes:

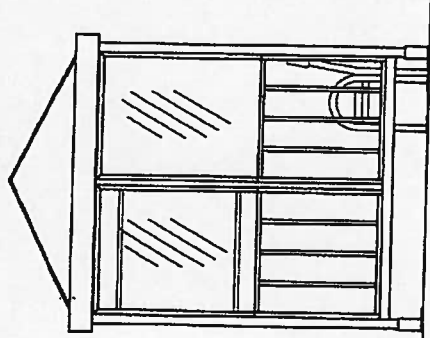
1. Analysis performed using Synchro software, version 7
2. # 95th percentile volume exceeds capacity, queue may be longer.
3. Queue shown is maximum after two cycles.
4. m Volume for 95th percentile queue is metered by upstream sig
5. North-south streets are labeled in BOLD



6' x 12' FRONT VIEW



END VIEW

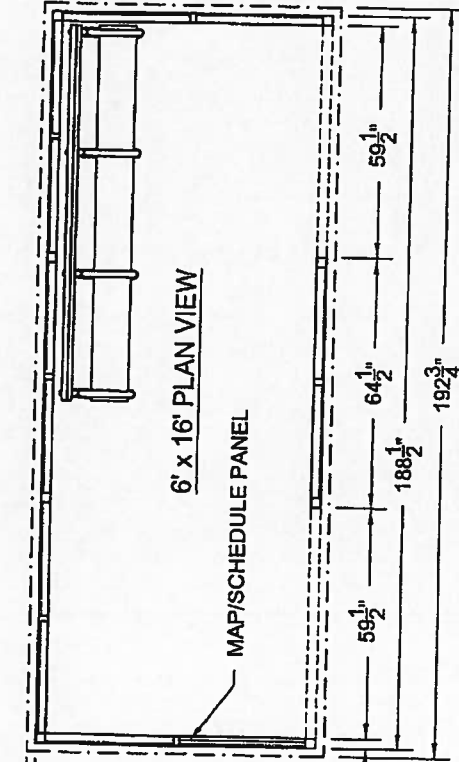
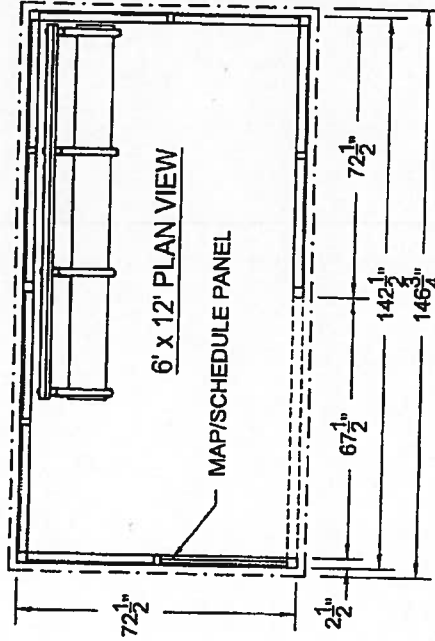


CUSTOMER APPROVAL

SIGNATURE

DATE

VICTOR STANLEY PSO-24 OR = 2 1/2" TYP



- GLAZING IS 1/4" CLEAR TEMPERED GLASS
- ROOF IS HIP SHAPE WITH TRANSLUCENT WHITE ACRYLIC
- ALUMINUM FINISH IS BLACK ANODIZED OR POWDER-COAT
- 6" BENCH/BACK -MAP PANEL -TRASH RECEPTACLE -OPTIONAL SOLAR PANEL

MODULAR BUILDING FLOOR PLAN/ELEVATION

6' x 12' and 6' x 16' units, job #

idoun, VA

DR BY: B.D.I.	SCALE: -NTS-
DATE: 2-21-06	REV:
SHEET 1 OF 1	DWG#
	loudoun

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